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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,110	12/30/2003	Kazuhide Kubota	U 014962-6	4518

7590

05/16/2005

Ladas & Parry  
26 West 61 Street  
New York, NY 10023

EXAMINER
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ZIMMER, MARC S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/748,110	KUBOTA, KAZUhide	
	<b>Examiner</b>	<b>Art Unit</b>	
	Marc S. Zimmer	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/30/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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***Claim Objections***

The claim language employed in claim 10 is awkward and nearly fails to recite a positive step. It is suggested that claim 10 be rewritten to state that the method "comprises making an ink composition adhere to a recording medium...". In any case, minor revision is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Pearlstine et al., U.S. patent # 6,087,416. Applicant is referred to entries 1 and 2 in the table in column 12 where numerous ink sample formulations are disclosed. Relevant to the present discussion, the formulation contains a total of 15 wt.% combined of a glycol alkyl ether denoted DPnP or PnP and hexylene glycol (also aptly identified as hexanediol). The formulations also contain a polysiloxane-oxyalkylene copolymer (S-7602 or S-7608) diethylene glycol, which is water-soluble, and 3 weight parts of a solid pigment where the weight contribution of the pigment is calculated as follows:

$$\% \text{ solids in ink concentrate} = 450/3000 = 0.15 = 15\%$$

$$\% \text{ solids in ink sample 1} = 0.15 \times 20 = 3$$

As for claim 7, the ink concentrates all include a polymer dispersant.

As for claims 10-12, the compositions described therein are used as ink jet inks (column 1, line 65) for vinyl substrates (title).

Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Pearlstine et al., U.S. patent # 6,087,416 and the chemical abstracts registry record information for S-7062 (L7602) and S-7608 (L7608). A registry search of these materials confirms that they are both polydimethylsiloxane-methyl(polyoxyethylene)siloxane graft copolymers.

It is appreciated that more than one source has been invoked in a statement of rejection under 35 U.S.C. 102. According to section 2131.01 of the MPEP, a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to:

- (A) Prove the primary reference contains an "enabled disclosure; "
- (B) Explain the meaning of a term used in the primary reference; or
- (C) Show that a characteristic not disclosed in the reference is inherent.

Clearly, the registry records were made of record in the present case for either of reasons (B) or (C).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearlstine et al., U.S. patent # 6,087,416 in view of Ma et al., U.S. Patent # 5,221,334. Pearlstine employs an n-propyl ether derivative of dipropylene glycol as opposed to the

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monomethyl-, ethyl-, and butyl- ethers of (di)ethylene glycol set out in claim 6.

Nonetheless, column 2, lines 47-50 state that any of the glycol ethers taught in *Ma* are suitable and *Ma* mentions in column 9, lines 1-15 many of the same compounds outlined in claim 6 hence these embodiments are at least obvious.

Claims 1-3 and 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Claims 1-3 and 5-12 are rejected under 35 U.S.C. 103(a) as being obvious over Ishimoto et al., U.S. Patent Application Publication No. 2003/0226473 A1.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

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Applicant is referred to table entries Lk 5, Lm 2, and Lc 2 where ink jet formulations comprising water-soluble glycerol, ethylene glycol, triethylene glycol monobutyl ether, less than 3 weight parts of a pigment, and a surfactant are mentioned. In the present case, ethylene glycol corresponds to the alkanediol required by the claim. The combined weight contributions of ethylene glycol and triethylene glycol monobutyl ether are, in each instance, less than 20wt. % but more than 10 wt.%. However, whereas the surfactant mandated by the claims is a polysiloxane-oxyalkylene copolymer, the surfactant utilized in these particular embodiments of the prior art invention is an acetylene glycol. Nevertheless, the reference does not discourage the skilled artisan from using the other favored surfactant, (i.e. BYK-348, which is a graft copolymer that adheres to the structural limitations stipulated in claim 3 according to paragraphs 49-51 and the figure on page 6) as an alternative to the acetylene glycol. Therefore, the claimed invention is obvious.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 10, 2005

*Marc Zimmer*  
Marc Zimmer  
AU 1712